

Electron Beam Multicharged Ion Source, by  
E.D. Donets, V.I. Iiyushchenko.  
RUSSIAN, rpt, JINR-P7-4124, 21 pages,  
ANL-Trans-721

July 69

384-708

Perspectives in the Synthesis of New Isotopes  
and Elements, by G. N. Flerov, 20 pp.

RUSSIAN, rpt, JINR-P7-~~4199~~, 1968.

AEC/ANL/Tr-746 4199

Sci/Nucl

Oct 69

393,475

*AEE* (KFK-tr-309) **ALPHA DECAY OF HEAVY NUCLEI.**  
Muzychika, Yu. A. (Joint Inst. for Nuclear Research, Dubna  
(USSR). Lab. of Nuclear Reactions). <sup>10</sup>Translated by Rosemarie  
Corssen (Kernforschungszentrum, Karlsruhe, Ger.), from report  
<sup>11</sup>JINR-P7-4435. <sup>20</sup>14p. <sup>22</sup>(In German). <sup>24</sup>Dep. CFSTI (U. S. Sales  
Only).

<sup>26</sup>Physics (nuclear); translations <sup>27</sup>20H

<sup>28</sup>MN-34 <sup>29</sup>NP NSA

AEC (KFK-tr-326) 5 THE RADIOACTIVE PROPERTIES  
OF THE ISOTOPES OF ELEMENT 103. 6 Druin, V. A. 7 (Joint  
Inst. for Nuclear Research, Dubna (USSR)). 10 Translated by  
Rosemarie Corssen (Kernforschungszentrum, Karlsruhe, W.  
Ger.), from report 11 JINR-P7-4755. 20 7p. 22 (In German). 24 Dep.  
CFSTI (U. S. Sales Only). 25

26 physics (nuclear); radioactivity; translations 27 20H, 18H

28 MN-34 29 NP NSA

AEC (KFK-tr-327) ROLE OF THE alpha-RADIOACTIVE  
BACKGROUND IN THE INVESTIGATION OF THE DECAY OF  
ELEMENT 104. Akap'ev, G. N.; Druin, V. A.; Rud', V. I.;  
Sun-Tszin-Yan, G. Ya. (Joint Inst. for Nuclear Research,  
Dubna (USSR)). Translated by Rosemarie Corssen (Kern-  
forschungszentrum, Karlsruhe, W. Ger.), from report JINR-P7-  
4772. 20p. (In German). Dep. CFSTI (U. S. Sales Only).  
25

26Physics (nuclear); translations 2720H

28MN-34 29NP NSA

AEC (KFK-tr-329) IDENTIFICATION OF ELEMENTS  
102 AND 104 WITH THE HELP OF THE COLLIMATION METHOD.  
Oganesyan, Yu. Ts.; Lobanov, Yu. V.; Tret'yakova, S. P.; Laza-  
rev, Yu. A.; Kolesov, I. V.; Gavrilov, K. A.; Plotko, V. M.; Polu-  
boyarinov, Yu. V. (Joint Inst. for Nuclear Research, Dubna  
(USSR)). Translated by Rosemarie Corssen (Kernforschungs-  
zentrum, Karlsruhe, Ger.), from report JINR-P7-1767. 292p.  
(In German). Dep. CFSTI (U. S. Sales Only).

chemistry (inorganic); translations 2707B

28MN-4 29NP NSA

Unclassified (KFK-tr-343) SPONTANEOUS FISSION OF  
ISOTOPES OF ELEMENTS 103 AND 105. Flerov, G.  
N.; Oganessian, Yu. Ts.; Lobanov, Yu. V.; Laz-  
arev, Yu. A.; Tret'yakova, S. P. (Joint Inst.  
for Nuclear Research, Dubna (USSR). Lab. of  
Nuclear Reactions). Translated by Rosemarie  
Corssen (Kernforschungszentrum, Karlsruhe, Ger.)  
from report JINR-P7-4932. 8p.

physics; translations

ND-34 NP RC

Unlimited

.Unclassified (KFK-tr-348) SEARCH FOR SPONTANEOUS  
FISSIONING ISOMERS WITH HALF LIVES IN NANOSECOND  
RANGE IN REACTION WITH HEAVY IONS. Flerov, G. N.;  
Gangrskii, Yu. P.; Markov, B. N.; (and others)  
(Joint Inst. for Nuclear Research, Dubna (USSR).  
Lab. of Nuclear Reactions). Translated by Rose-  
marie Corssen (Kernforschungszentrum, Karlsruhe,  
Ger.) from report JINR-P7-5018. 11p.

physics (nuclear); translations

ND-34 NP RC

Unlimited

*REC* (KFK-tr-350) INVESTIGATION OF THE alpha  
DECAY OF ISOTOPES OF ELEMENT 105. Druin, V. A.;  
Demin, A. G.; Kharitonov, Yu. P.; Akap'ev, G. N.; Rud', V. I.;  
Sun-Tszin-Yan, G. Ya.; Chelnokov, L. P.; Gavrilov, K. A.  
(Joint Inst. for Nuclear Research, Dubna (USSR)). <sup>10</sup>Trans-  
lated by Rosemarie Corssen (Kernforschungszentrum, Karlsruhe,  
Ger.), from report <sup>11</sup>JINR-P7-5161, <sup>20</sup>11p. <sup>22</sup>(In German). <sup>24</sup>  
Dep. NTIS (U. S. Sales Only).

25

<sup>26</sup>Physics (nuclear); translations <sup>27</sup>20H<sup>28</sup>MN-34 <sup>29</sup>NP NSA

4(ANL-Trans-876) ;MULTICHARGED ION SOURCES.  
6Vorob'ev, E. D.; Pasyuk, A. S. 7(Joint Inst. for Nuclear Research,  
Dubna (USSR). Lab. of Nuclear Reactions). 10Translated for  
Argonne National Lab., Ill., from report 11JINR-P7-5177. 2028p.  
23(CONF-700555-1). 24Dep. NTIS.  
25From 14, all union conference on emission electronics;  
Tashkent, USSR (May 1970).

26methods and equipment; particle accelerators; translations  
2714, 20G

28MN-28 29P NSA

1 (KFK-tr-352) 2 EMISSIONS OF  $^6\text{He}$  THROUGH  
NUCLEAR FISSION BY HEAVY IONS. 3 Pulativ, D. D.; Poli-  
kanov, S. M. 4 (Joint Inst. for Nuclear Research, Dubna (USSR)).  
5 Translated by Rosemarie Corssen (Kernforschungszentrum,  
Karlsruhe, Ger.), from report 6 JINR-P7-5192, 7 12p. 8 (In  
German). 9 Dep. NTIS (U. S. Sales Only). 10

11 Physics (nuclear); translations 12 20H

13 MN-34 14 NP NSA

17. U. C. (NP-tr-1936) DELAYED FISSION OF SOME NEU-  
TRON-DEFICIENT ATOMIC NUCLEI. Skobelev, N. K. (Joint  
Inst. for Nuclear Research, Dubna (USSR). Lab. of Nuclear Reac-  
tions). Translation of report JINR-P7-5584. 8p.

physics (nuclear); translations 20H

MN-34 NP NSA

REVISED CARD

4 (ORNL-tr-2635) 5 ANGULAR DISTRIBUTION OF NEU-  
TRONS PRODUCED IN BOMBARDMENT OF Ge, Mo, Ag, AND Pr  
TARGETS BY HEAVY C, O, Ne, AND Ar IONS. 6 Il'inov, A. S.;  
Karamyan, S. A.; Nguyen Tak An; Sharifov, K. N. 7 (Joint Inst. for  
Nuclear Research, Dubna (USSR). Lab. of Nuclear Reactions). 10  
Translated for Oak Ridge National Lab., Tenn., from report 11 JINR-  
P7-6316. 20 7p. 24 Dep. NTIS.

26 Physics (nuclear); translations 27 20H

28 MN-34 29 P NSA

*ACC* (BNL-tr-516) NUCLEAR REACTIONS INDUCED  
BY XENON IONS AND THE PRODUCTION OF SUPERHEAVY  
ELEMENTS. Flerov, G. N.; Oganessian, Yu. Ts. (Joint Inst.  
for Nuclear Research, Dubna (USSR)). <sup>10</sup>Translated by S. J.  
Amoretti (Brookhaven National Lab., Upton, N. Y.), from report  
<sup>11</sup>JINR-P7-6523. <sup>20</sup>30p. <sup>24</sup>Dep. NTIS.

<sup>24</sup>physics (nuclear); translations <sup>27</sup>20H

<sup>28</sup>MN-34 <sup>29</sup>P NSA

Electrostatic Channel with Periodic Focusing,  
by A. A. Glazov, D. L. Novikov.  
RUSSIAN, per, JINR-P9-3024-1  
AEC ANL-Tr-459

Sci - Elec  
Sept 67

342,285

Formation of the Magnetic Field in the Central  
Region of the Synchrocyclotron to Increase  
Vertical Focusing, by V. I. Danilov, V. B. Mukhina,  
A. N. Safonov.  
RUSSIAN, per, JINR-P-9-3181  
AEC ANI-Tr-477

Sci - B&M  
Sept 67

342,288

Accelerating in a Resonator, A Relativistic Bunch  
Bearing a Large Charge, by S. B. Rubin,  
V. N. Mamonov, 58 pp.  
RUSSIAN, rpt, JINR-P9-3346-2, 1967.  
AEC/UCRL-Tr-1400-69

Sci/Elec  
Nov 69

396,013

Influence of Shielding on the Negative-Mass  
Effect, by I. N. Ivanov, 17 pp.  
RUSSIAN, preprint, JINR-P9-3476-2, Aug. 1967.  
AEC/UCRL/Tr-1370-68

Sci/Nucl  
Feb 69

374.250

Motion of Particles in the "Adgezator", by  
I. N. Ivanov, M. L. Iovnovich, et al, 25 pp.  
RUSSIAN, per, JINR-P9-4132, Nov 1968.  
AEC/UCRL/Tr-1390-69

Sci/Nucl  
Jun 69

382,694

Focusing of a Charged Electron Ring in the  
Collective Ion Linear Accelerator, by  
A. G. Bonch-Osmolovskiy. 10 pp.  
GERMAN, rpt, JINR-P9-4135.  
AEC-KFK-tr-297

Sci-Phys  
Oct 70

Stability of an Electron-Ion Ring, by  
A. G. Bonch-Osmolovskiy, I. N. Ivanov, et al,  
12 pp.  
RUSSIAN, rpt, JINR-P9-4138, Nov 1968.  
AEC-UCRL-Tr-1392-69

Sci/Nucl  
Jun 69

382,695

System for Accelerating an Ion-Loaded Electron Ring,  
by A. G. Borch-Osmolovskiy, G. V. Dolbilov, 23 pp.  
RUSSIAN, rpt, JINR-P9-4171, Nov 1968.  
AEC/UCRL-Tr-1394-69

Sci/Nucl  
Oct 69

595,473

Acceleration of Multiple Charged Ions by the  
Collective Method, by M. L. Iovnvich,  
N. B. Rubin.  
RUSSIAN, rpt, JINR-P9-4257. 11 pp.  
AEC-UCRL-Trans-1395

Sci-Phys  
Aug 69

390,019

Stationary State of a Polarized Self-Focusing  
Ring (Acceleration of an Electron-Ion Bunch),  
by Ye. A. Perelshteyn, 26 pp.  
RUSSIAN, rpt, JINR-P9-4423, 1969.  
AEC/UCRL-Tr-1401-69

Sci/Phy  
Mar 70

402,551

Longitudinal Instabilities in Circular Charged  
Beams, Part I. Effect of Negative Mass, by  
A. G. Bonch-Osmolovskii  
RUSSIAN, rpt, JINR-P9-4424, 1969.  
AEC/UCRL-Tr-1402-69

Sci/Nucl  
Jun 70

Longitudinal Instabilities in Circular Charged  
Beams. Part II. Radiative Instability, by  
A. S. Bonch-Osmolovskii, 14 pp.  
RUSSIAN, ~~Sci~~, JINR-P9-4425, 1969.  
AEC/UCRL-Tr-1403-69

Sci/Phy  
Jun 70

One More Possible Method of Heavy Ion Acceleration,  
by N. I. Tarantin, 10 pp.

RUSSIAN, rpt, JINR-P9-4555, 1969, pp 1-13.

AEC/ANL-Tr-805-70

Sci/Phy

Apr 70

405,696

The Use of the Existing Charged Heavy-Particle  
Accelerators and the Possibilities of Creating  
new Domestic Ones for Radiation Therapy,  
by V. P. Dzhelepov, L. L. Gol'din,  
RUSSIAN, rpt, JINR-P9-4560, April 1969.  
AEC/UCRL-Tr-1422-70

Sci/Nucl  
Feb 71

450 (UCRL-Trans-1426) 5STUDY OF THE NEGATIVE-  
MASS EFFECT IN THE "ADGEZATOR" MODEL. 6Ryltsev,  
P. I.; Sarantsev, V. P.; Fartushnyi, V. P. 7(Joint Inst. for  
Nuclear Research, Dubna (USSR). Lab. of High Energy). 810  
Translated for Univ. of California Lawrence Radiation Lab.,  
Berkeley, from report 11JINR-P9-4620. 2033p. 24Dep. NTIS.

25

26physics (particle); translations 2720H

28MN-34 29P NSA

Unc1 (KFK-tr-342) EXTRACTION OF AN ELECTRON  
RING FROM THE "ADGEZATOR". Reshetnikova, K. A.;  
Sarantsev, V. P. (Joint Inst. for Nuclear Re-  
search, Dubna (USSR). Translated by Rosemarie  
Corssen (Kerforschungszentrum, Karlsruhe, Ger.)  
from report JINR-P9-4678. 13p.

physics (particle); translations

ND-34 NP RC

Unlimited

Cryogenic High-Frequency Accelerating System for  
a Ringotron, by N. G. Anishchenko, A. S. Alekseyev,  
13 pp.  
RUSSIAN, rpt, JINR-P9-4722, 1969.  
AEC/SLAC-Tr-111-70

Sci/Nucl  
Apr 70

405,651

Coherent Energy Losses of a Relativistic Bunch in  
Linear Accelerating Systems, by A. B. Kuznetsov,  
S. B. Rubin, 10 pp.  
RUSSIAN, rpt, JINR-P9-4728, Oct 1969  
AEC/UCRL-Tr-1407

/sci/Nucl  
May 70

405,713

The "Squirrel-Cage" System of Focussing an  
Electron Ring in a Collective Linear Ion Accelerator,  
by G. V. Dolbilov, I. N. Ivanov, 8 pp.  
RUSSIAN, Rpt, JINR-P9-4737.  
AEC/UCRL-Tr-1408-70

Sci/Nucl  
Jul 70

FE 2 (UCRL-Trans-1440) ELECTRON-ION BUNCH  
DIAGNOSTICS BY MEANS OF BREMSTRAHLUNG. Iovnovich,  
M. L.; Sarantsev, V. P.; Fiks, M. M. (Joint Inst. for Nuclear  
Research, Dubna (USSR)). 10 Translated for Univ. of California  
Lawrence Radiation Lab., Berkeley, from report 11 JINR-P9-4850.  
20 8p. 24 Dep. NTIS.

25

26 Particle accelerators; translations 27 20G

28 MN-28 29 P NSA

1442 (UCRL-Trans-1442) RELATIVISTIC SOLITONS AND  
NONLINEAR WAVES AS BUNCHES FOR COHERENT ACCELERA-  
TION. Tsyтовich, V. N. (Joint Inst. for Nuclear Research,  
Dubna (USSR)). Translated for Univ. of California Lawrence Ra-  
diation Lab., Berkeley, from report JINR-P9-5090. 14p. Dep.  
NTIS.

particles accelerators; translations 20G

MN-28 P NSA

2nd REVISED CARD

253 4(UCRL-Trans-1443) 5COLLECTIVE BEAM ACCEL-  
ERATION. 6Tsytoich, V. N. 7(Joint Inst. for Nuclear Re-  
search, Dubna (USSR)). 8Translated for Univ. of California  
Lawrence Radiation Lab., Berkeley, from report 9JINR-P9-5091.  
1010p. 11Dep. NTIS.

12  
13  
14  
15  
16particle accelerators; translations 1720G

18MN-28 19P NSA



*Ref.* 4(BNL-1r-431) 5ACCELERATION AND EXTRACTION  
OF DEUTERONS FROM THE JINR PROTON SYNCHROTRON.

6Baldin, A. M.; (and others) 7(Joint Inst. for Nuclear Research,  
Dubna (USSR)). 10Translated by S. J. Amoretty (Brookhaven  
National Lab., Upton, N. Y.), from report 11JINR-P9-5442. 12SP.  
14Dep. NTIS.

15

16particle accelerators; translations 1720G

18MN-28 19P NSA

4(UCRL-Trans-1441) 5ON THE QUESTION OF DE-  
CELERATION OF A RELATIVISTIC CHARGE DURING ITS TRAN-  
SIT PAST AN IDEALLY CONDUCTING OBSTACLE. 6Kuznetsov,  
A. B.; Rubin, S. V. 7(Joint Inst. for Nuclear Research, Dubna  
(USSR)). 10Translated by G. Brodell (Univ. of California, Law-  
rence Radiation Lab., Berkeley), from report 11JINR-P9-5247. 20  
19p. 24Dep. NTIS.

26Particle accelerators; translations 2720G

28MN-28 29P NSA

4(UCRL-Trans-1446) 5CHARGED RELATIVISTIC  
ELECTRON RINGS IN A HELICAL MAGNETIC FIELD, 6Bonch-  
Osmolovski, A. G. 7(Joint Inst. for Nuclear Research, Dubna  
(USSR)). 10Translated by G. Brodell and L. J. Laslett for Univ.  
of California Lawrence Radiation Lab., Berkeley, from report 11  
JINR-P9-5299. 2021p. 24Dep. NTIS.

25

26physics (particle); translations 2720H

28MN-34 29P NSA

*PEC* (UCRL-Trans-1434) EXPERIMENTS ON ACCELERATION OF alpha-PARTICLES BY THE COLLECTIVE METHOD. Sarantsev, V. P.; Rasherskii, V. P.; Kaminskii, A. K.; Mironov, V. I.; Fartushnyi, V. P.; Sergeev, A. P.; Novikov, V. G.; Tyutyunnikov, S. I.; Kaminskaya, A. M. (Joint Inst. for Nuclear Research, Dubna (USSR)). Translated by G. Brodell for Univ. of California Lawrence Radiation Lab., Berkeley, from report JINR-P9-5558. 19p. Dep. NTIS.

particle accelerators; translations 20G

MN-25 P NSA

430.4(UCRL-Trans-1453) 5NUMERICAL ANALYSIS OF THE  
NONLINEAR STAGE OF DEVELOPMENT OF THE RADIATIVE IN-  
STABILITY OF RELATIVISTIC ELECTRON RINGS. 6Bonch-  
Osmolovskii, A. G.; Makhan'kov, V. G.; Tsytovich, V. N.; Shchegov,  
B. G. 7(Joint Inst. for Nuclear Research, Dubna (USSR)). 10Trans-  
lated by B. Thayne for Univ. of California, Lawrence Radiation Lab.,  
Berkeley, from report 11JINR-P9-5622. 2026p. 24Dep. NTIS.

26particle accelerators; translations 2720G

28MN-28 29P NSA

Vakhrushin, Yu. P., et al.  
SOME PROBLEMS OF CHOOSING AND CALCULATING  
THE FOCUSING SYSTEM OF 30 MeV LINEAR IN-  
DUCTION ACCELERATOR. Report JINR-P9-5714.  
1971. (UCRL). (Cancelled)

1-10 (UCRL-Trans-1456) ON THE STATIONARY STATE  
OF A CHARGED SELF-FOCUSING BEAM OF HIGH CURRENT.  
6 Bonch-Osmolovskii, A. G.; Surovtsev, Yu. S. 7 (Joint Inst. for Nu-  
clear Research, Dubna (USSR)). 10 Translated by G. Brodel (Univ.  
of California, Lawrence Berkeley Lab., Berkeley), from report  
11 JINR-P9-5857. 20 13p. 24 Dep. NTIS.

26 particle accelerators; physics (plasma); translations 27 20G, 20I

28 MN-34 29 P NSA

Beam Focusing in the Electron-Conductor of the  
Collective Accelerator Model, by A. P. Belysev.  
RUSSIAN, rpt, JINR-P9-6081, Oct 1971.

9 \*AEC/UCRL-1470

April 72

4(UCRL-Trans-1474) 1STABILIZATION OF THE KINK-  
INSTABILITY OF A TWO-COMPONENT RELATIVISTIC RING BY  
AN AZIMUTHAL MAGNETIC FIELD. Bonch-Osmolovskii, A. G.;  
Reshetnikova, K. A. 1(Joint Inst. for Nuclear Research, Dubna  
(USSR)). 10Translated for Univ. of California Lawrence Berkeley  
Lab., from Preprint 11JINR-P9-6136. 208p. 24Dep. NTIS.

26particle accelerators; translations 2720G

28MN-28 29P NSA

750 (UCRL-Trans-1480) INFLUENCE OF METALLIC  
SURFACES ON THE STABILITY AND FOCUSING OF RELATIV-  
ISTIC ELECTRON RINGS. Bonch-Osmolovskii, A. G. (Joint  
Inst. for Nuclear Research, Dubna (USSR)). 10 Translated by  
G. Brodell (Univ. of California, Berkeley. Lawrence Berkeley  
Lab.), from report 11 JINR-P9-6318. 20 16p. 24 Dep. NTIS.

20 particle accelerators; translations 25 20G

20 MN-28 20 P NSA

REC (UCRL-Trans-1487) 5ADIABATIC PROCESSES IN A  
SPIRAL MAGNETIC FIELD. 6Bonch-Osmolovskii, A. G. 7Joint  
Inst. for Nuclear Research, Dubna (USSR)). 10Translated for Univ.  
of California, Lawrence Berkeley Lab., Berkeley, from report 11  
JINR-P9-6464. 2014p. 24Dep. NTIS.

26particle accelerators; physics (plasma); translations 2720G,  
20I

28MN-28 29P NSA

Separation of the Rare-earth Elements with the  
Aid of Gas Chromatography of Their Chlorides,  
by T. S. Zvarova.

RUSSIAN, rpt, JINR-P12-4504, 14 pp.

AEC-ANL-Trans-789

Sci-Chem  
Sep 70

Increasing the Discharge Time in a Spark  
Chamber to 10 to 100 MSEC, by

YU. K. Akimov.

RUSSIAN, rpt, JINR-<sup>l</sup>13-3064.

AEC-NP-tr-1810

Sci-Mech

Aug 69

390,005

Resonator of a Proton Multiple Acceleratin  
System in the JINR Synchrophasotron, by V. A.  
Vagin, V. D. Wolodin, A. P. Saenko, I. N.  
Semenyushkin, V. O. Stepanyuk.  
RUSSIAN, per, JINR-P13-3084.  
AEC ANL-Tr-460

Sci - B&M  
Sept 67

342,286

REC<sub>4</sub> (BNL-tr-346) <sub>5</sub>FORMING AND TRAPPING OF A  
GASEOUS HYDROGEN JET IN A VACUUM. <sub>6</sub>Zolin, L. S.; Niki-  
tin, V. A.; Pilipenko, Yu. K. <sub>7</sub>(Joint Inst. for Nuclear Research,  
Dubna (USSR)). <sub>10</sub>Translated by S. J. Amoretty (Brookhaven Na-  
tional Lab., Upton, N. Y.), from report <sub>11</sub>JINR-P13-3425. <sub>20</sub>26p.  
<sub>24</sub>Dep. CFSTI.

<sub>26</sub>Particle accelerators; translations <sub>27</sub>20G

<sub>28</sub>MN-28 <sub>29</sub>P NSA

On the Optical Anisotropy of the Safety Glass  
in the 5-Metre Hydrogen Bubble Chamber, by

A. Eapletal, 31 pp.

RUSSIAN, preprint, JINR-P 13-4059, 1968.

AEC/NP-Tr-1785-69

Sci/Phy

Sept 69

387,473

A Gas Discharge Ion Source for all Electro-  
magnetic Separator Operating on Line with a Heavy  
Ion Cyclotron, by N. I. Tarantin, A. V. Demyanov,  
24 pp.

RUSSIAN, rpt, JINR-P13-4061, 1968.

AEC/NP-Tr-1781-69

Sci/Nucl  
Oct 69

393,478

Engineering of Large Spark Chambers and Power  
Pulse Supplying Generators, by K.A. Baicher.  
FRENCH, rpt, JINR-P13-4191, 1968  
\*AEC

Mech  
July 69

Uncl (KFK-tr-347) GAS FILLED MASS SEPARA-  
TOR FOR INVESTIGATION OF THE PRODUCTS OF HEAVY  
ION REACTIONS. Bacho, I.; Bogdanov, D. D.;  
Darotsi, Sh.; (and others) (Joint Inst. for  
Nuclear Research, Dubna (USSR). Lab. of Nuclear  
Reactions). Translated by Rosemarie Corssen  
(Kernforschungszentrum, Karlsruhe, Ger.) from  
report JINR-P13-4453. 27p.

physics (particle); translations

ND-34 NP RC

Unlimited

Effect of Ultrasound on Formation of Ionizing-  
Particle Tracks in a Liquid-Hydrogen Bubble Chamber,  
by V. A. Akulichev, L. R. Gavrilov, 17 pp.  
RUSSIAN, ~~ppr~~, JINR-P13-4702, 1969.  
AEC/SLAC-Tr-110-70

Sci/Phy  
Apr 70

405,650

New Method for Information Pick up from Spark  
Chambers, by Yu. A. Karchavin, A. T. Maryushin  
RUSSIAN, rpt, Joint Institute for Nuclear Re-  
search, Report P13-5915, 1970, 12 pp.  
NASA IT F 13,839

Feb 72

677C. 4(CERN-Trans-71-2) 5DYNAMICS OF VAPOUR BUB-  
BLES IN LIQUID HYDROGEN IN ULTRASONIC BUBBLE CHAM-  
BERS. 6Akulichev, V. A.; Alekseev, V. N.; Naugol'nykh, K. A.;  
Tkachev, L. G.; Shestakov, V. D. 7(Joint Inst. for Nuclear Re-  
search, Dubna (USSR)). 10Translated by N. M. Kolb-Seletski and  
G. Harigel (CERN, Geneva, Switzerland), from report 11JINR-P13-  
5327. 2017p. 24Dep. NTIS (U. S. Sales Only).

26physics (particle); translations 2720H

28MN-34 29NP NSA

(CERN-Trans-71-25) ELECTRIC DISCHARGE OF  
GAS BUBBLES IN LIQUIDS. Pisarev, A. F.; Selivanov, G. I.;  
Balandin, M. P.; Lytkin, L. K. (Joint Inst. for Nuclear Research,  
Dubna (USSR)). Translated by R. Luther (CERN, Geneva, Switzer-  
land), from report JINR-P13-5277. 11p. Dep. NTIS (U. S.  
Sales Only).

instrumentation; translations 18D

MN-37 NP NSA

*REC* (BNL-tr-470) 5 HADAMARD-TRANSFORM SCINTIL-  
LATION COUNTER. 6 Soroko, L. M. 7 (Joint Inst. for Nuclear Re-  
search, Dubna (USSR)). 10 Translated by S. J. Amoretty (Brook-  
haven National Upton, N. Y.), from report 11 JINR-PL3-5696. 20 19p.  
24 Dep. NTIS.

26 instrumentation; translations 27 18D

28 MN-37 29 P NSA

REC 4 (LA-tr-71-77) TRACK CHAMBER WITH CHARGE  
MULTIPLICATION INSIDE THE FILM ELECTRODES. 6 Nikanorov,  
V. I.; Pisarev, A. F.; Selivanov, G. I. 7 (Joint Inst. for Nuclear Re-  
search, Dubna (USSR). Lab. of Nuclear Problems). 10 Translated  
by Helen Dahlby (Los Alamos Scientific Lab., N. Mex.), from re-  
port 11 JINR-P13-5780. 20 12p. 24 Dep. NTIS.

26 instrumentation; translations 27 18D

28 MN-37 29 P NSA

012-4(LA-tr-71-78) 5NEW METHODS OF DETECTING  
PARTICLE TRACKS IN LIQUID AND SOLID MEDIA. 6Nikanorov,  
V. I.; Pisarev, A. F.; Selivanov, G. I. 7(Joint Inst. for Nuclear  
Research, Dubna (USSR). Lab. of Nuclear Problems). 10Trans-  
lated by Helen Dahlby (Los Alamos Scientific Lab., N. Mex.), from  
report 11JINR-F13-5782. 2019p. 24Dep. NTIS.

26instrumentation; translations 2718D

28MN-37 29P NSA

*REC* <sup>4</sup>(CERN-Trans-72-6) <sup>5</sup>VAPOR BUBBLE DYNAMICS IN  
HYDROGEN BUBBLE CHAMBERS. <sup>6</sup>Tkachev, L. G.; Shestakov,  
V. D. <sup>7</sup>(Joint Inst. for Nuclear Research, Dubna (USSR). Lab. of  
Nuclear Problems). <sup>10</sup>Translated by N. M. Harigel and G. Harigel  
(CERN, Geneva), from report <sup>11</sup>JINR-P13-6037. <sup>20</sup>24p. <sup>24</sup>Dep.  
NTIS (U. S. Sales Only).

<sup>28</sup>instrumentation; physics; translations <sup>27</sup>18D, 20

<sup>28</sup>MN-37 <sup>29</sup>NP NSA

REC (BNL-tr-465) FORMING IN A VACUUM A JET TARGET FROM CONDENSED HYDROGEN. Bartenev, V. D.; Valevich, A. I.; Pilipenko, Yu. K.; Smelyanskii, V. V. (Joint Inst. for Nuclear Research, Dubna (USSR)). Translated by S. J. Amoretty (Brookhaven National Lab., Upton, N. Y.), from report JINR-P13-6058. 2020p. 24Dep. NTIS.

26particle accelerators; translations 2720G

28MN-28 29P NSA

NTC 72-14291-102  
REC. (BNL-tr-482) INVESTIGATION OF THE SPECTRA  
OF gamma-RAYS LEADING TO THE PRODUCTION OF SPON-  
TANEOUSLY FISSIONING  $^{236}\text{U}$  ISOMER. Gangrskii, Yu. P.;  
Dalkhsuren, B.; Markov, B. N.; Nad, T.; Laitai, A.; Vinnai, I.;  
Ieki, L.; Kluge, G. (Joint Inst. for Nuclear Research, Dubna  
(USSR)). Translated by S. J. Amoretty (Brookhaven National  
Lab., Upton, N. Y.), from report JINR-P15-6147. 2013p. 24Dep.  
NTIS.

26Physics (nuclear); translations 2720H

28MN-34 29P NSA

An Approximate Method for Calculating a Shield  
for the Scattered Radiation of Accelerators,  
by L. N. Zaitsev, et al, 15 pp.

RUSSIAN, rpt, JINR-P16-3591

AEC-ORNL-Tr-1916

P911229468-V

Sci/Phy  
Sept 68

357,398

Buildup of Low-energy Radiation in Accelerator  
Shields, by B. S. Sychev.

RUSSIAN, rpt, JINR-P16-4304. 26 pp.

AEC-ORNL-tr-2165

Sci-Nucl Sci

Aug 69

390,014

Radiation Yield of Shields for the United Institute  
of Nuclear Research of Nuclear Research Synchro-  
Cyclotron, by V. Ye. Aleinikov, 5 pp.  
RUSSIAN, rpt, JINR-P16-4727, 1969.  
AEC/ORNL-Tr-2277-70

Sci/Nucl  
May 70

405,714

Tissue Dosimetry of Radiation Generated by High  
Energy Accelerators, by V. T. Golovachik,

10 pp.

RUSSIAN, rpt, JINR-P16-4765. 1960

AEC/ORNL-Tr-2286-70

Sci/Nucl

Jun 70

*REC* (UCRL-Trans-1425) <sup>5</sup>ELECTRON-BEAM SHAPING  
IN A LINEAR INDUCTION ACCELERATOR. <sup>6</sup>Matora, I. M.;  
Merkulov, L. A.; Shelontsev, I. I. <sup>7</sup>(Joint Inst. for Nuclear Re-  
search, Dubna (USSR)). <sup>810</sup>Translated for Univ. of California,  
Lawrence Radiation Lab., Berkeley, from report <sup>11</sup>JINR-19-  
5268. <sup>10</sup>14p. <sup>24</sup>Dep. NTIS.

<sup>26</sup>particle accelerators; translations <sup>27</sup>20G

<sup>28</sup>MN-28 <sup>29</sup>P NSA

AEC  
1(ORNL-tr-2460) DOSAGE CHARACTERISTICS OF 200-  
MeV PROTONS. Zel'chinski, M.; Pshona, S.; Komochkov, M. M.;  
Sychev, V. S.; Cherevatenko, A. B. (Joint Inst. for Nuclear Re-  
search, Dubna (USSR). Lab. of Nuclear Problems). 810 Translated  
for Oak Ridge National Lab., Tenn., from report 11JINR-P16-5383.  
151209p. 24Dep. NTIS.

26health and safety; translations 2706R

28MN-41 29P NSA

Long-term variations of the jet stream, by  
E. R. Hope, 5 pp.

JAPANESE, per, Kagaku Science, 27, no 12,  
p 630-631, 1957.

SIA 58-607

Sci

Aug 59

94,428

Report on the Practical Aspect of Fishing by Low-Frequency Electric-Shocks. I. On the Electric Resistance in Fish Bodies, by Kuroki, Toshiro, T. 1950.

JAFN1234, per, Nagoshima Fish Coll, Vol 1, 1950, pp 15-21.

PWS

Sci

Jan 64

Report on the Practical Aspect of Fishing by Low-Frequency Electric-Shocks. II. Study of Electrocution Test in Long-Line Shark Fishing, by Kuroki, Toshiro, 8 pp.

JAPANESE, per, Kagoshima Fish Coll, Vol I, 1950, pp 22-27.

FWS

Sci  
Jan 64

Amin Address to Government Officials 8 November,  
7 pp.  
ENGLISH, rpt; Kampala Radio, 8 Nov 72, 1400 GMT;  
9 Nov 72, 1900 GMT.  
JPRS 57573

Nov 72

Highway Bulletin.

TURKISH, per, Karayollari Bulletin, Issue 237,  
Dec 1969.

DIA LN 1052-70

March 71

**Study of Blast Furnace Shaft as Packed Bed Using  
Experimental Model, by K. Otake.**

**JAPANESE, per, Kawasaki Steel Techn Rep, Vol 1,  
No 2, 1969, pp 24-32.**

**\*BISI 8354**

CRL/D 1029

Sci-Mat

June 70

Spanish Communist Party Leader's Speech in  
DPRK, 8 pp.  
ENGLISH, rpt, KONA, Pyongyang, 1012 GMT,  
15 Nov 72.  
JPRS 57667

Dec 72

Women's Representatives Meet With Amin,  
11 pp.  
ENGLISH, rpt, Kampala Radio, 1526 GMT, 22 Nov  
72,  
JPRS 57691

Dec 72

President Amin Resigns Reported, 11 pp.  
ENGLISH, rpt, Kampala Radio, 1700 GMT,  
23 Nov 72.  
JPRS 57657

Dec 72

Shcherbitskiy Marko 5941 and Varnary of USSR's  
Founding, by V. V. Shcherbitskiy 12 pp.  
ULGAINTIAN, Kely 1972, 1200 GR, 15 Dec 1972.  
JPRS 57951

Jan 73

Ukrainian Paper Scores Uniates in West, 5 pp.  
UKRAINIAN, radio, Kiev Radio, 0930 GMT, 23 Jan  
1973.  
JPRS 58210

Feb 73

...General Terms: Auto  
loads, Road Speeds, and Load Capacity of Several  
Truck Types Manufactured by the Yaroslavl Automob-  
ile Factory, by Eng V. Osepchugov, 5 pp.

...Knowledge-Power, No 10, 1950,  
Sent to ATT-C-1211.

AF 548870

10,488

... - Mechanics, automobiles, trucks,  
motor works

3511720

Mar 54 CTS

KOBE STEEL ENGINEERING REPORTS  
SEE KOBE SEIKO GINO

Free Machining Hot Work Die Steel, by  
T. Nakano, et al.  
JAPANESE, per, Kobe Steel Eng. Rep, Vol 16, No 1  
1966, pp 39-56.  
DISI 6879

sci/ materials  
sept 69

390,952

Review of Research Into Equilibria Affecting  
the Deoxidation of Molten Steel, by K. Narita.  
JAPANESE, per, Kobe Steel R and D Eng. Rep.,  
Vol 19, No 2, 1969, pp 25-42.  
\*BISI 7658

sci/ materials  
oct 79-

Progress in automatic One-Side Welding Apparatus,  
by S. Fujimoto.

JAPANESE, per, Kobe Steel R and D Engineering  
Reports, Vol 20, No 4, Oct 1970, pp 25-31.

BIB1 10091

Oct 72

Study of End Cracks in Automatic One-Side Weld  
Joints and Their Prevention, by N. Okuda.

JAPANESE, per, Kobe Steel R and D Engineering  
Reports, Vol 20, No 4, Oct 1970, pp 49-53.

BISI 10094

Oct 72

Komatsu Technical Report No 1, by  
Akio Terai, Eiji Kawamura.  
GOVERNMENT USE ONLY  
JAPANESE, per, Komatsu Technical Report,  
Vol 14, No 1, 1968, pp 68-91.  
ARM/FSTC/HT-23-461-68

Sci-Misc  
June 69

384,094

Pak Chong-Hui Counters South Korean  
Unification Hopes, 5 pp.  
ENGLISH, rpt, RONA, Pyongyang, 1041 GMT,  
21 Mar 71,  
JPBS 53124

May 71

'100-Day Battle' for Socialist Construction  
Ends, 6 pp.  
ENGLISH, rpt, KONA, Pyongyang, 0403 GMT,  
17 Apr 71.  
JPRS 53124

May 71

Directionally Controlled Solidification of 100-t  
Steel Castings, by P. Tivolotti, G. Iaccarino.

FRENCH, rpt, Kongressvortrage, 28th International  
Foundry Congress, Vienna 1961, pp 95-106.

BIBI 2606

Sci - Min/Metals

Jul 62

203,499

list 136

Poster of KIM Tu Bong, 2 pp. UNCLASSIFIED

JAPANESE, pamphlet, Korea Review, Dec 1957.

SS

0004th AIBB

Tr IR 5660-57

FE - Korea

Biog

Feb 56